



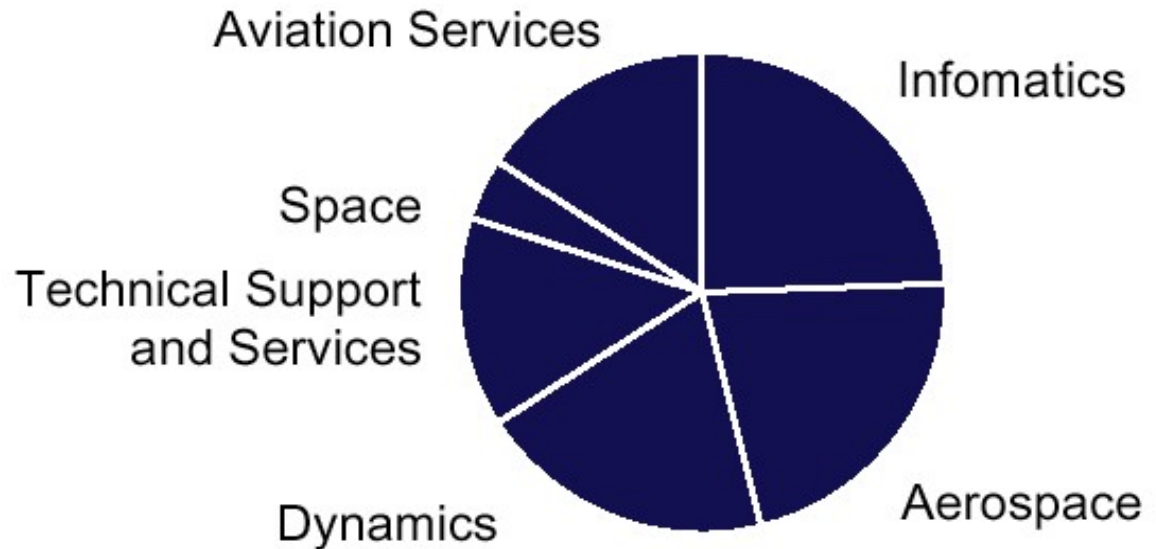
RMA Technologies *for* **Small & Medium Economies**

Kym Bergmann

Director of Corporate Strategy, Saab Pacific



Saab AB



Preliminary pro forma

1999

Sales, SEK m.

17,600 (**\$A 3.5 billion**)

R&D expenses, SEK m.

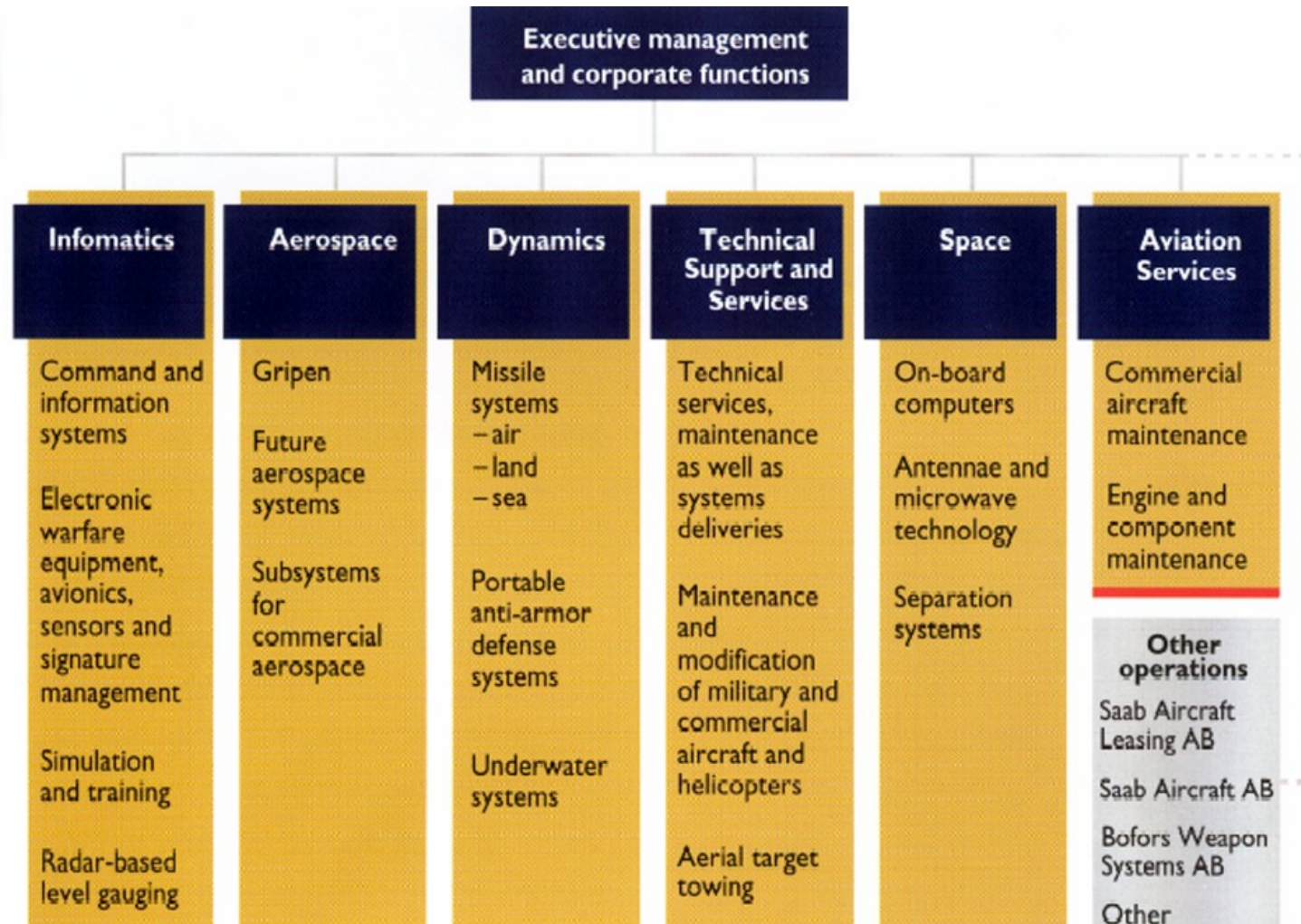
4,500 (**\$A 0.9 billion**)

No. of employees, total

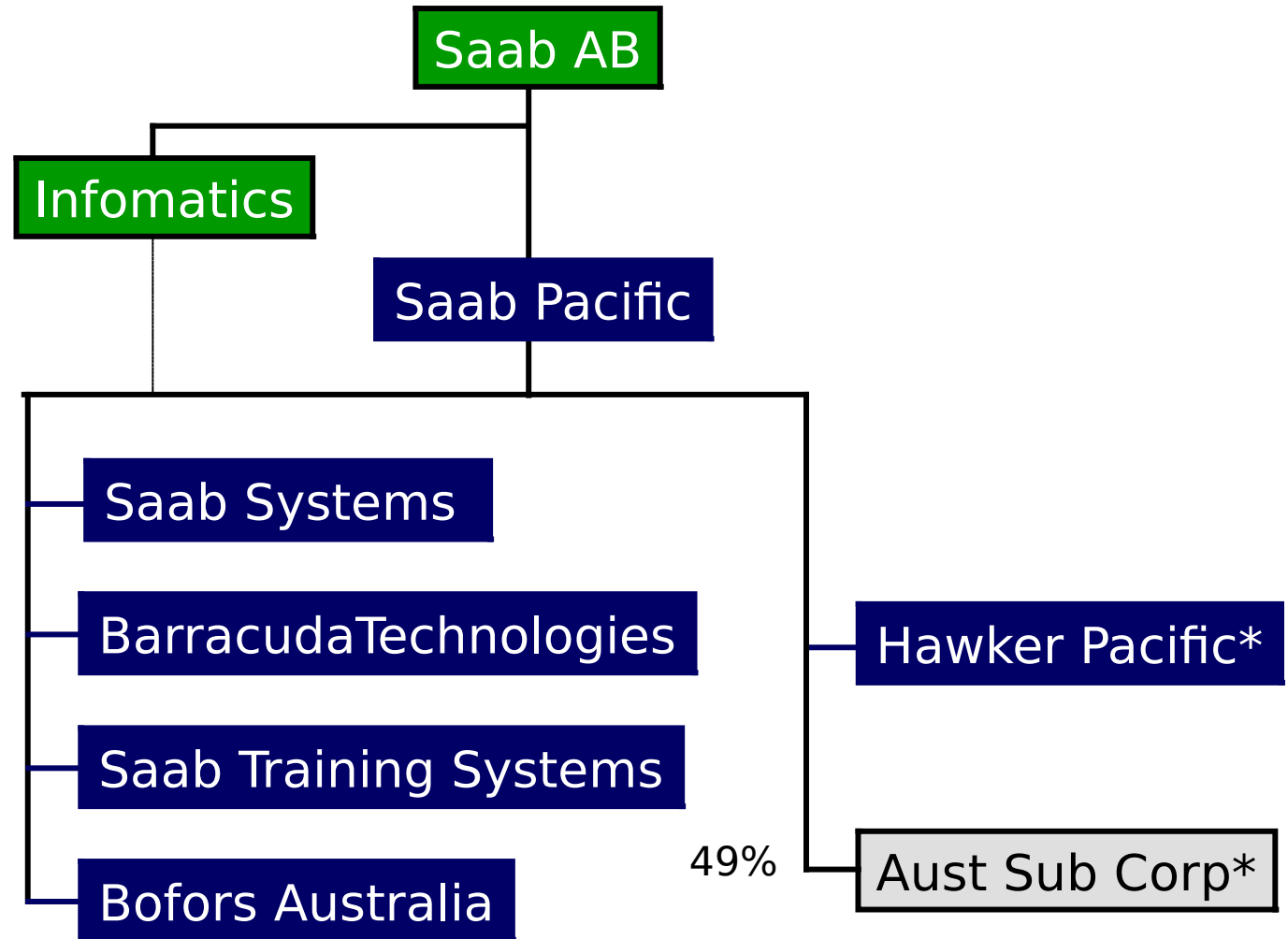
17,000



Saab Corporation



Saab in Australia



* To be sold





Naval Combat Systems



Land Warfare Systems

Defence Business Areas



Mine Warfare Systems



Support Systems

Capabilities - Land CSS



AUSTACSS

- **Unix-based Army tactical CSS**
Delivered 1997-8

BCSS

- **Wintel-based replacement**
- **Initial system delivered March 99**
- **Fielded in E Timor**



Capabilities - Naval C2

**CSI and Supply of C2, FCS, TIR
System delivered on time 1995
~2m lines of code, 30% in Australia**



Cost Effectiveness

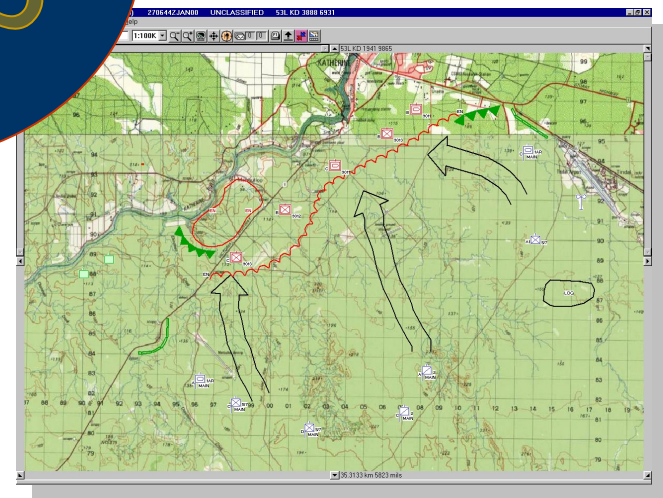
of RMA Technologies ...

- Reduction in personnel costs
- Avoiding conflict
- Reduction of casualties





BCSS





BCSS Goals

- Decrease decision action cycles:
 - reduce knowledge to decision time frames
- High quality of battlefield situation awareness:
 - appropriate presentation of
 - strategic,
 - operational
 - tactical and
 - sensor information
- Interoperability with strategic control and allied forces
- “To enhance the Combat Power through the support of fast, quality decision making in the tactical land environment”





Decision Making

- Military Decision making:
 - Science (Movement rates, fuel consumption etc)
 - Art (Leadership, relationship with the enemy)
 - Know when to take a decision
- BCSS aims to automate the science

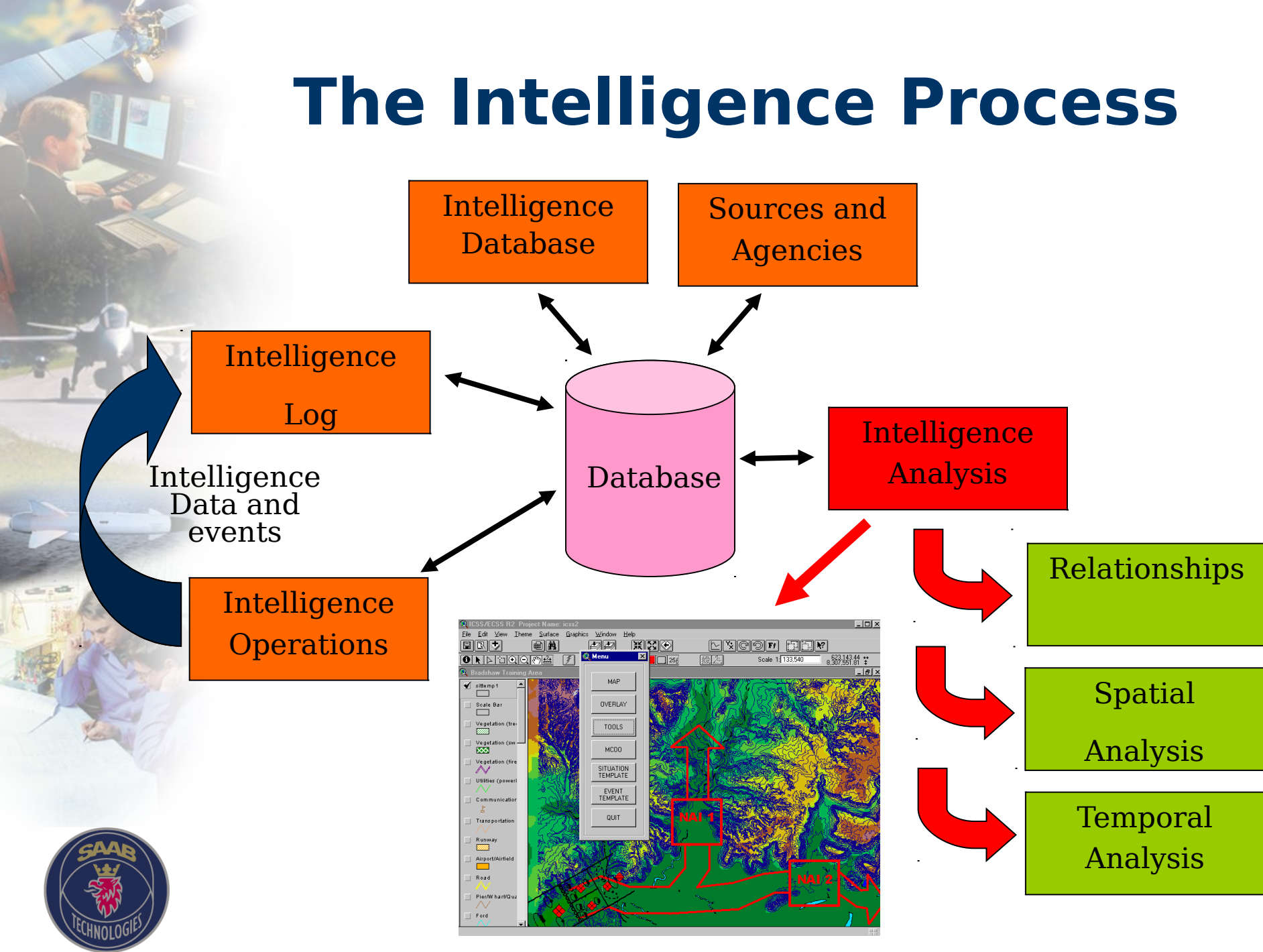


BCSS - Functional Priorities

- Communications (esp over CNR)
- Situation Awareness
- Formal Messaging
- Deployed system management
- Step-up capability
- Joint interoperability



The Intelligence Process



Intelligence Logging

Intelligence events are captured in a log and linked to the intelligence database

[ICSS - Intelligence Log]

INTREP INTSUM

Log Detail Actions/Info Admin Analysis

Intelligence Log Entries

Serial #	DTG Received	TO:	From:	Report Type	Subject	DTG Actual	Actions Outstanding	Watson
9913	091256ZSEP98		161 RECCE SQN	INTREP	CIVILIAN VEHICLE FIRED UPON BY POSSIBLE SA-16	081423ZSEP98	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9912	091255ZSEP98		RAAF TINDAL	INTREP	SA-16 SIGHTED VIC -14.97 131.55	081225ZSEP98	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9911	091253ZSEP98		161 RECCE SQN	INTREP	161 AIRCRAFT DESTROYED BY SA-16	081420ZSEP98	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9910	091252ZSEP98		5 AVN REGT	INTREP	5 AVN HELO FIRED UPON BY SA-16	081215ZSEP98	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9909	091250ZSEP98		161 RECCE SQN	INTREP	SA-16 SIGHTED	081218ZSEP98	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9908	091249ZSEP98		5 AVN REGT	INTREP	SA-16 SIGHTED	081332ZSEP98	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9906	091239ZSEP98		RAAF TINDAL	INTREP	SA-16 FIRED ON RAAF AIRCRAFT	080754ZSEP98	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9882	270959ZJUG98		PF*SVN*	AMBH	E/UNK NO EN ENGAGED WITH HARRASSING SA AND SW FIRE EN WITHDREW UNK DIRECTION/EN CAS UNK.	302045ZDEC68	<input type="checkbox"/>	<input type="checkbox"/>
9881	270959ZJUG98		RAAF*A*	A-S/BASE	F/A-S ON BASE /1SMALL BUNKER DES/1 SAMPAN DAM	301615ZDEC68	<input type="checkbox"/>	<input type="checkbox"/>

Filter.... Filter.... Filter.... Filter.... Filter....

Keyword Search: Search

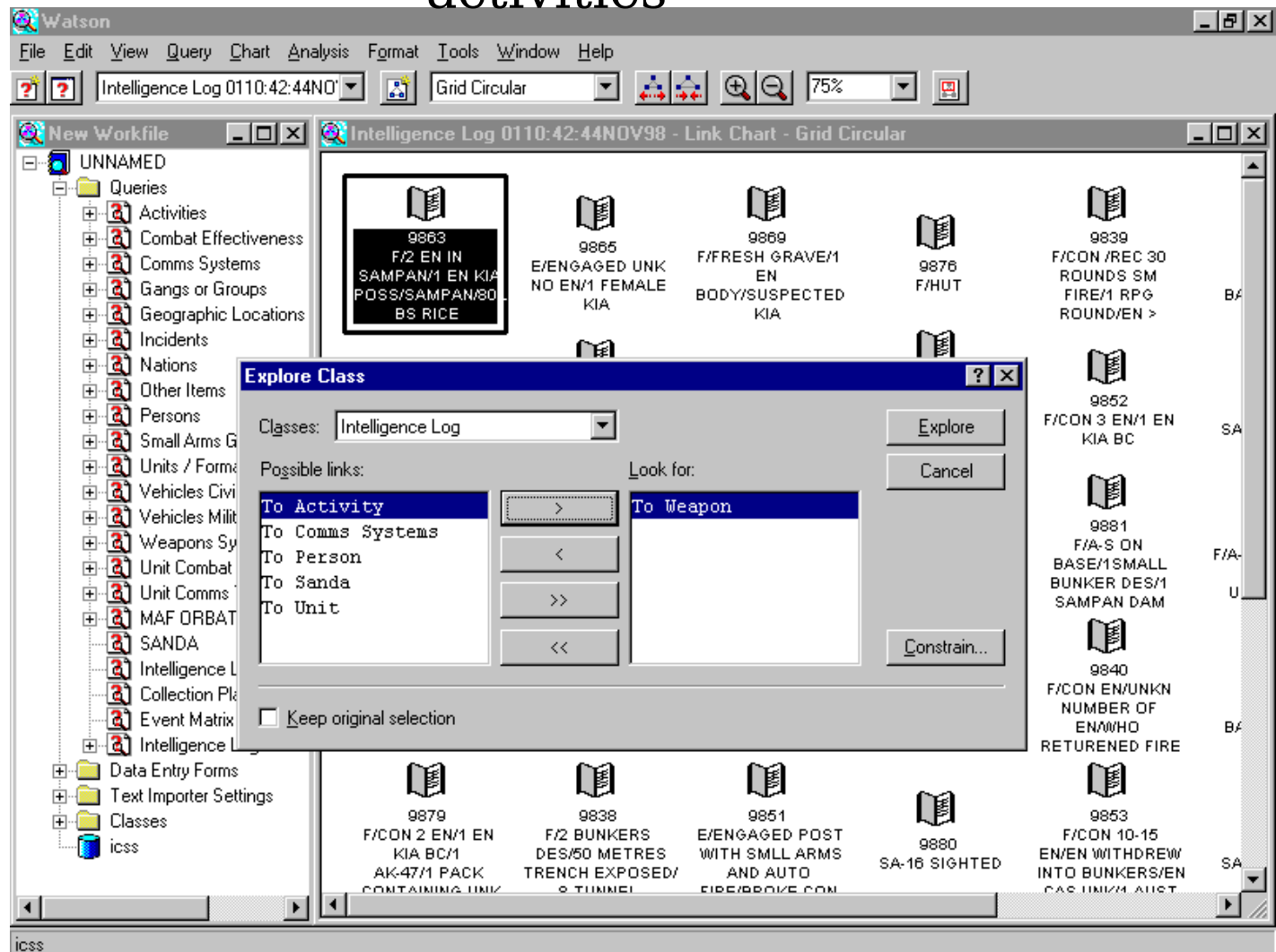
Record: 1/285

Start Exploring - C:\TEMP\vicssd... [ICSS - Intelligenc... Watson untitle - Paint 15:24



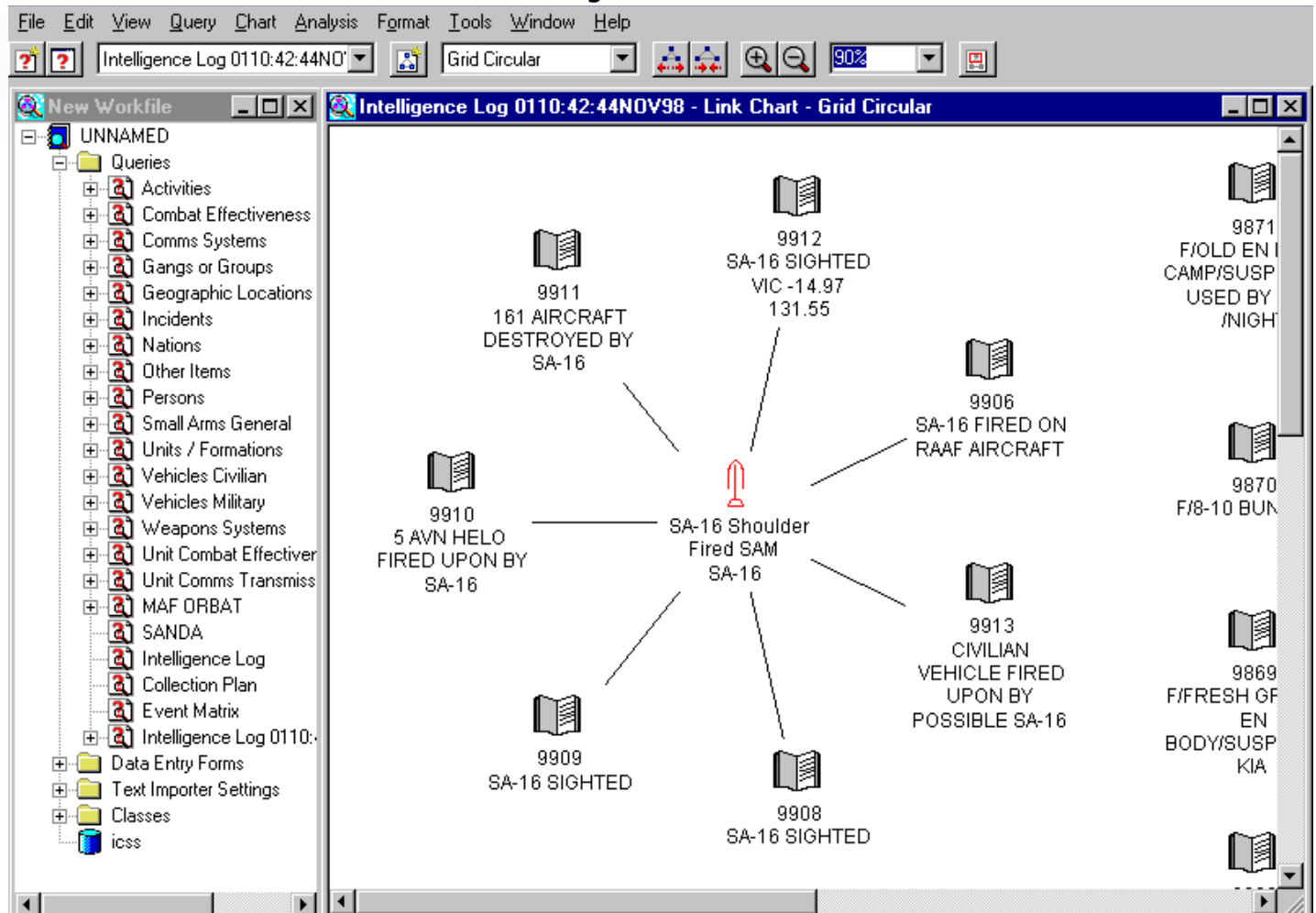
Intelligence Queries

Queries are made to search for specific activities



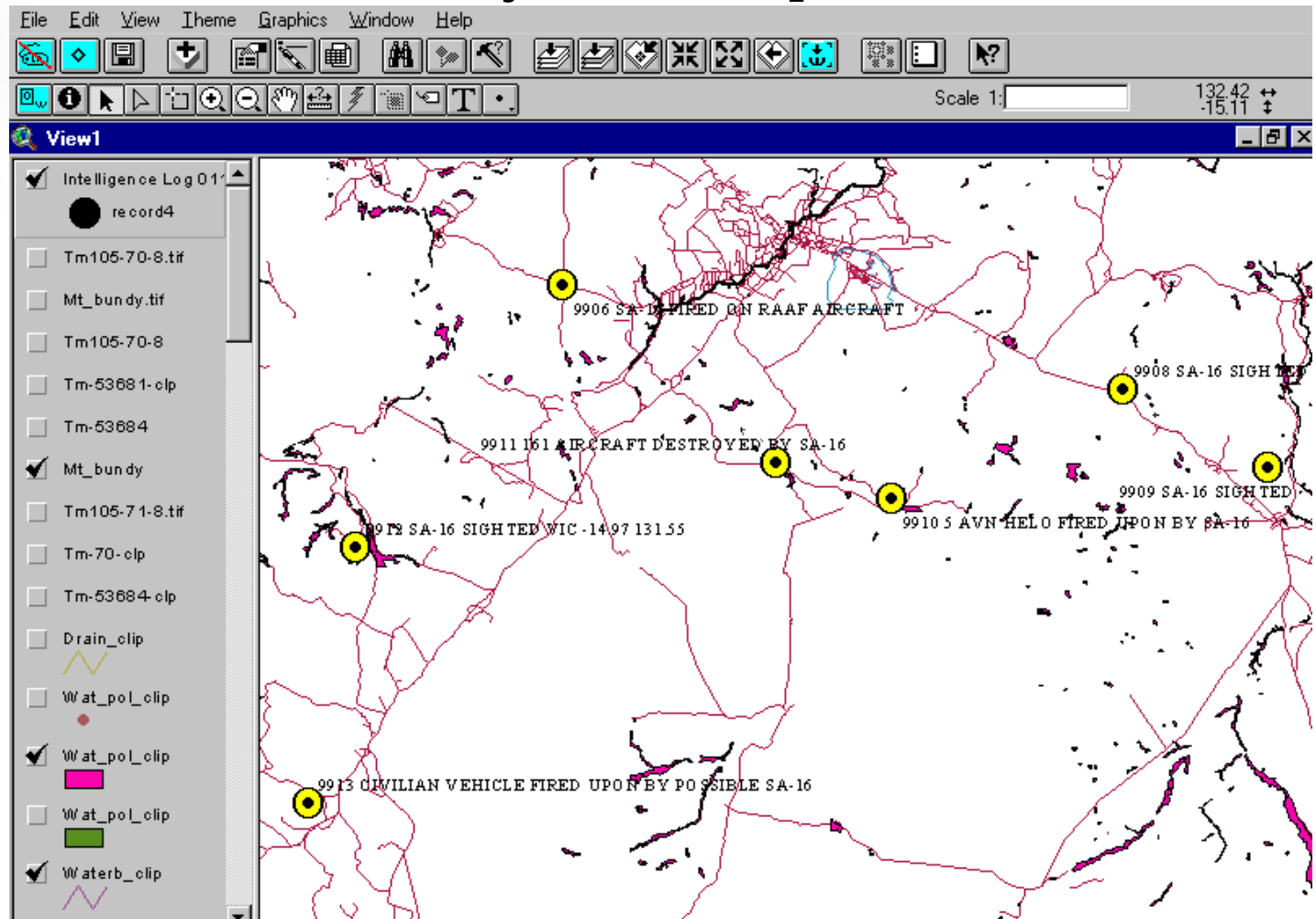
Relationships

Events are found, linked and presented for analysis



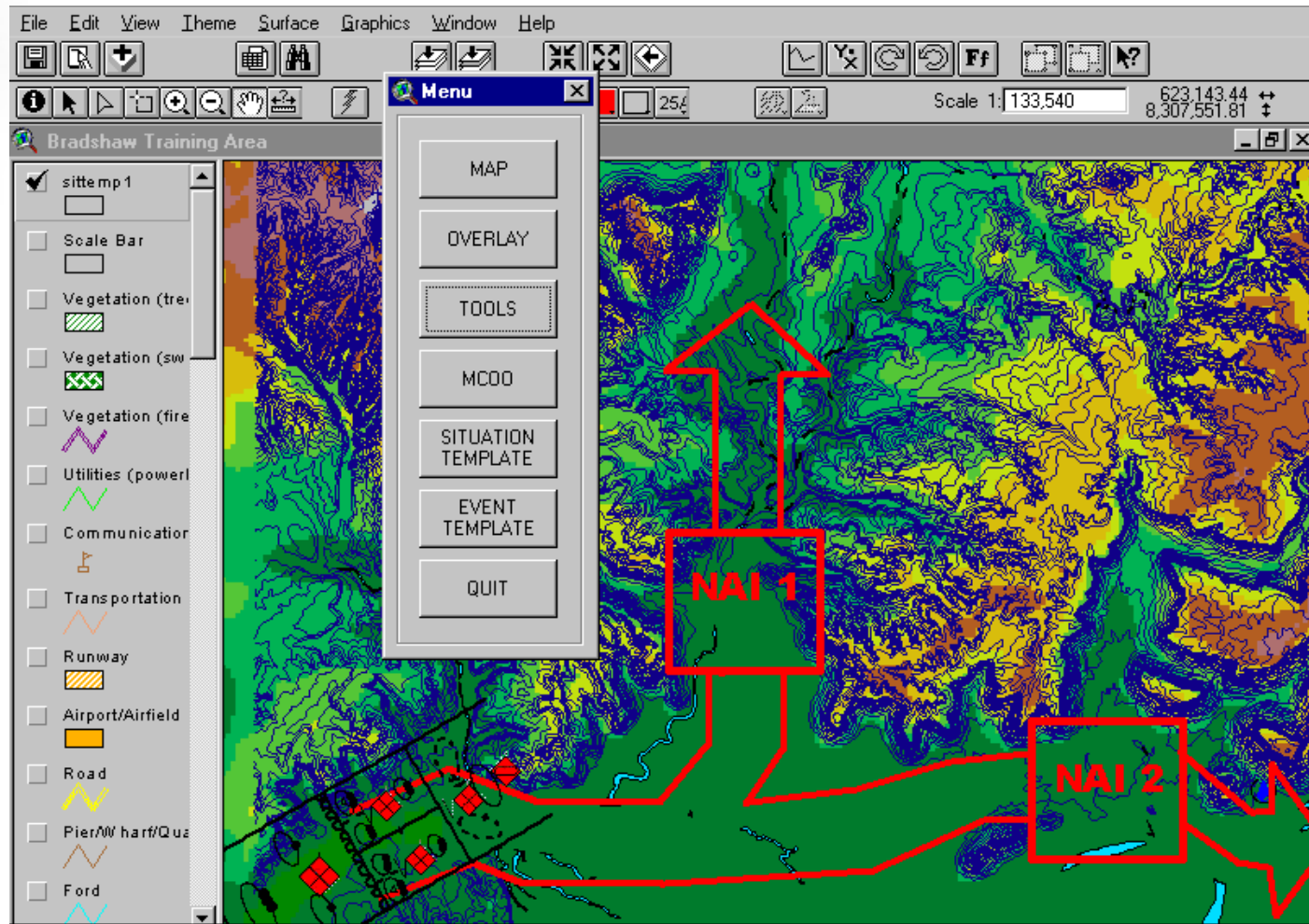
Spatial Presentation/Analysis

Selected events are presented for spatial analysis on maps



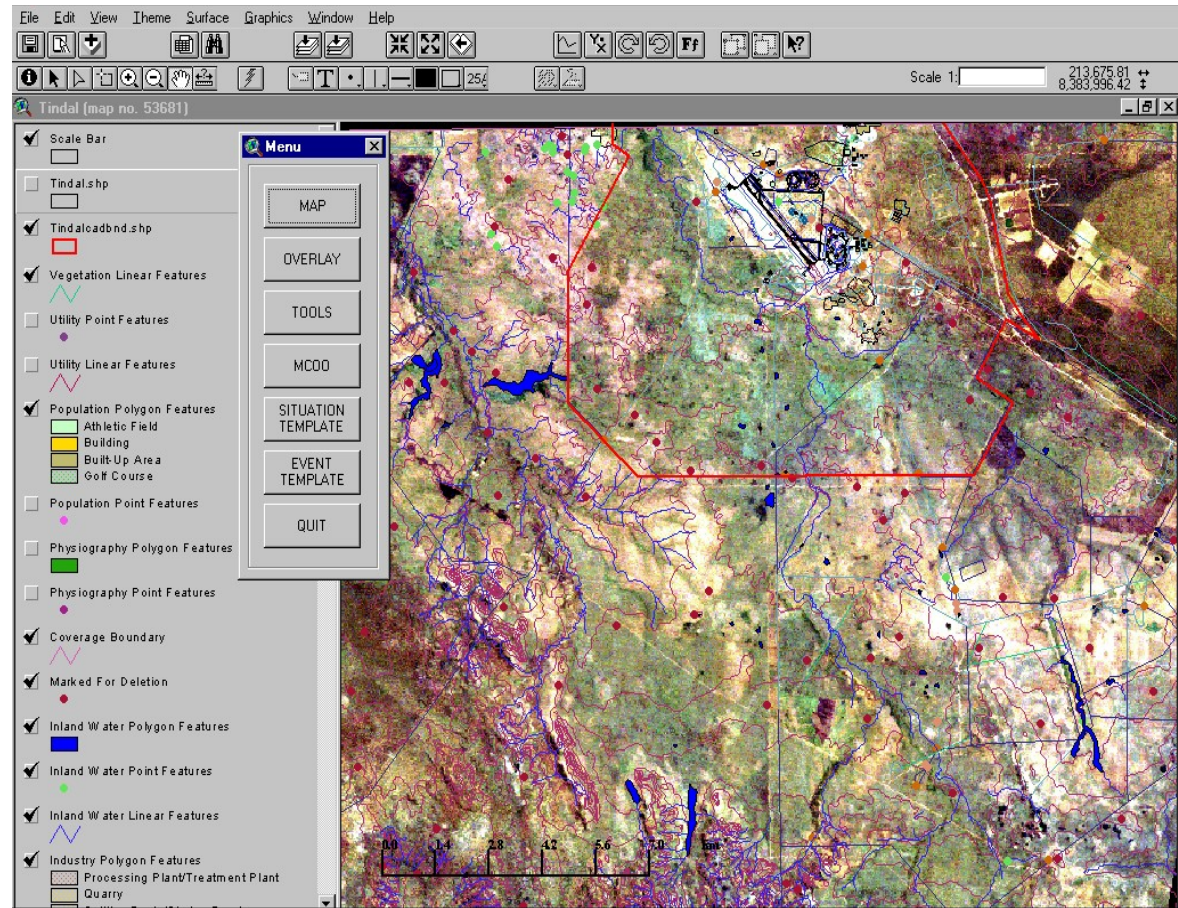
Building the Red Picture

A Red picture with nominated areas of interest and possible courses of action can be established



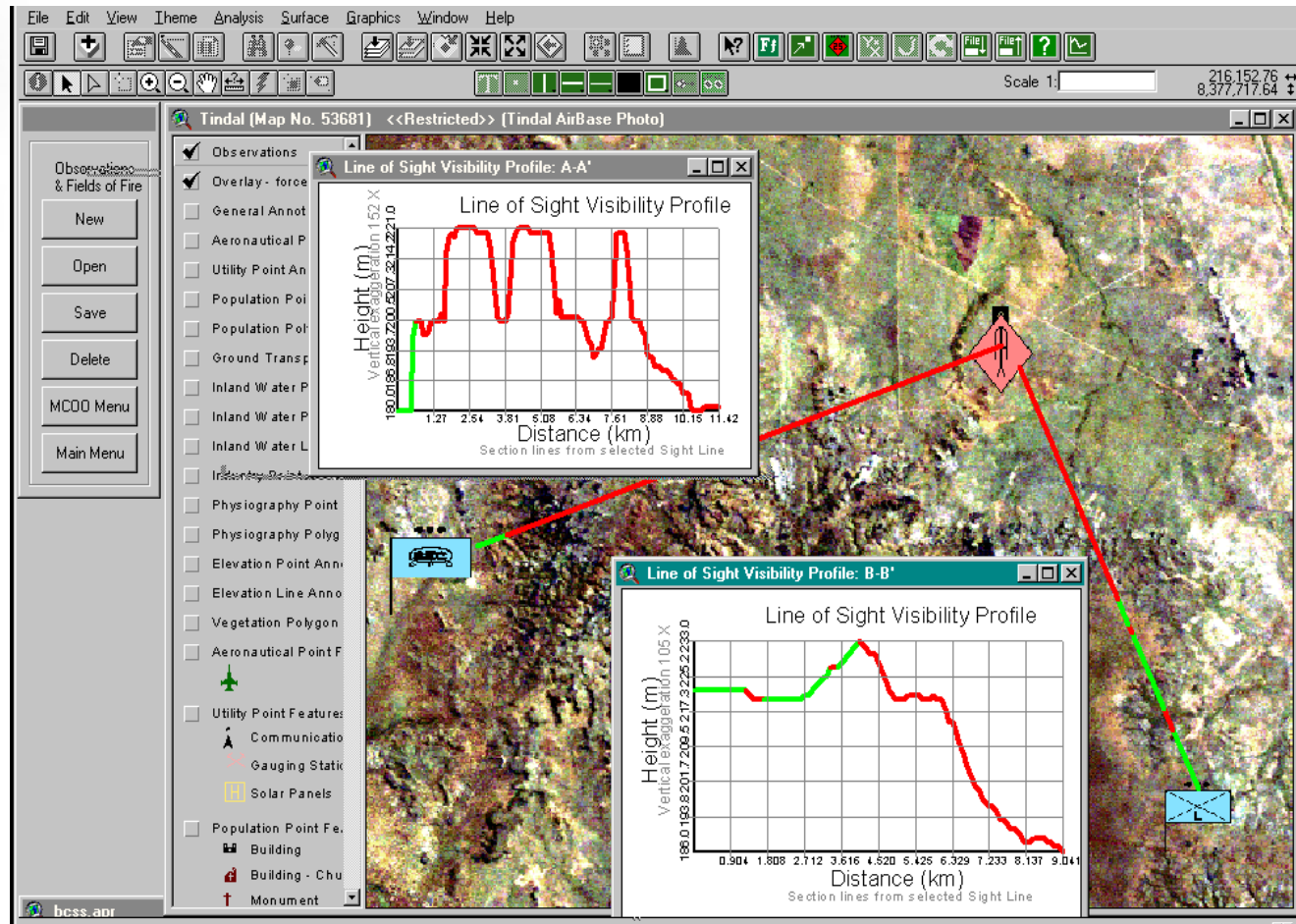
Geographical Information System

GIS
presentation
of maps
Overlays on
maps,
Going analysis
Visibility
analysis



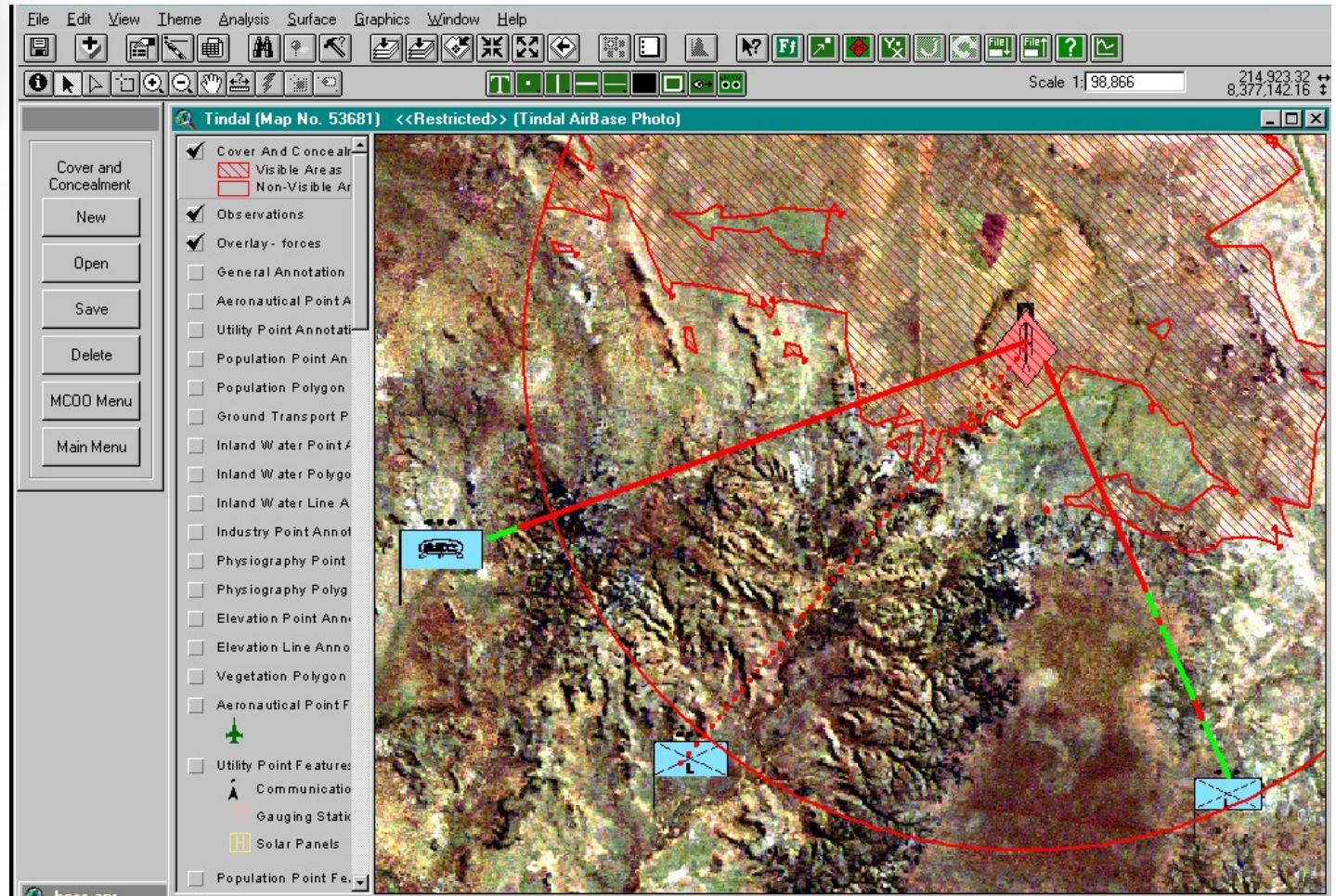
Visibility Analysis

Visibility analysis identifies the enemy's line of sight.



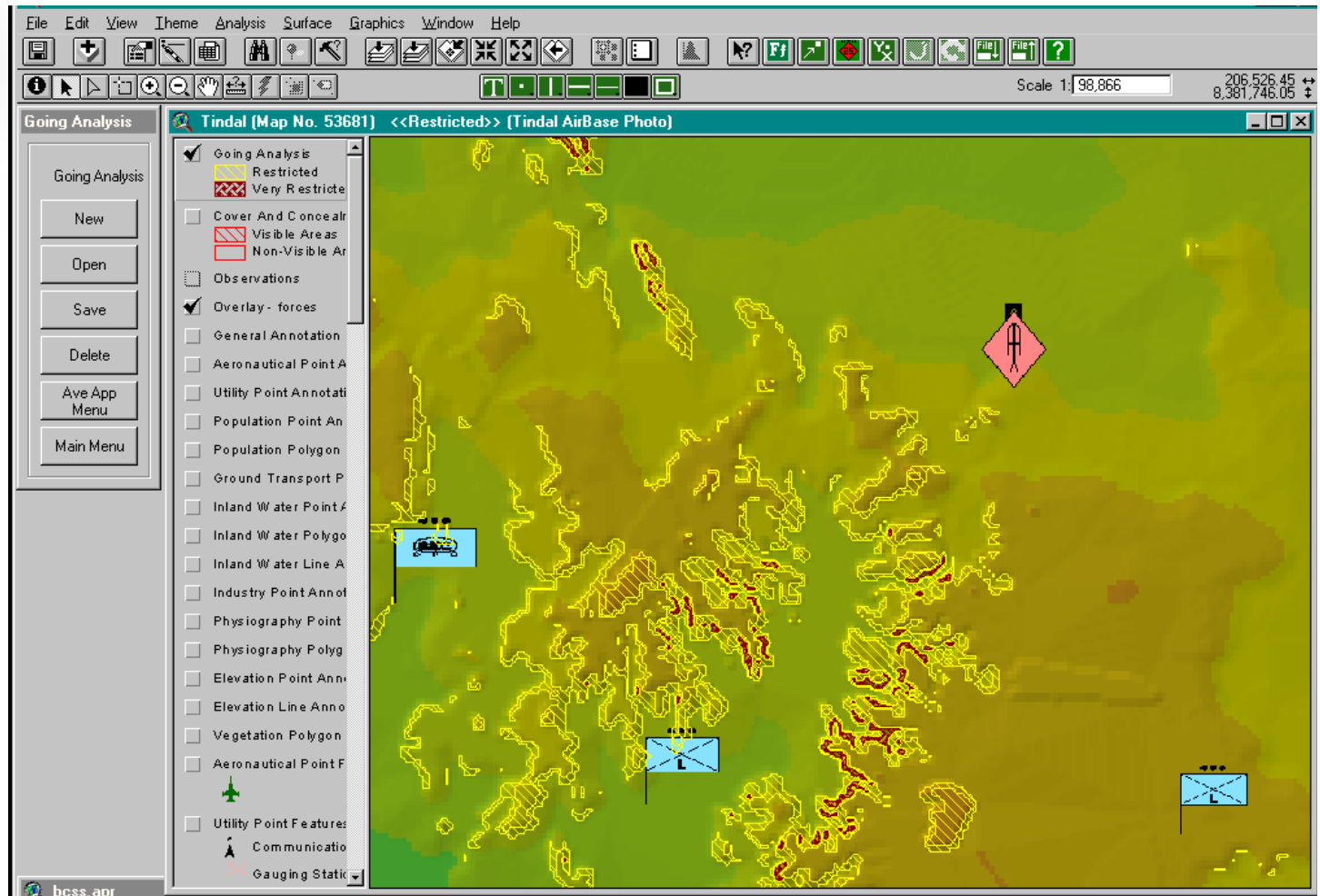
Fields of Fire & Concealment

Analyse the ability to conceal yourself from enemy sight



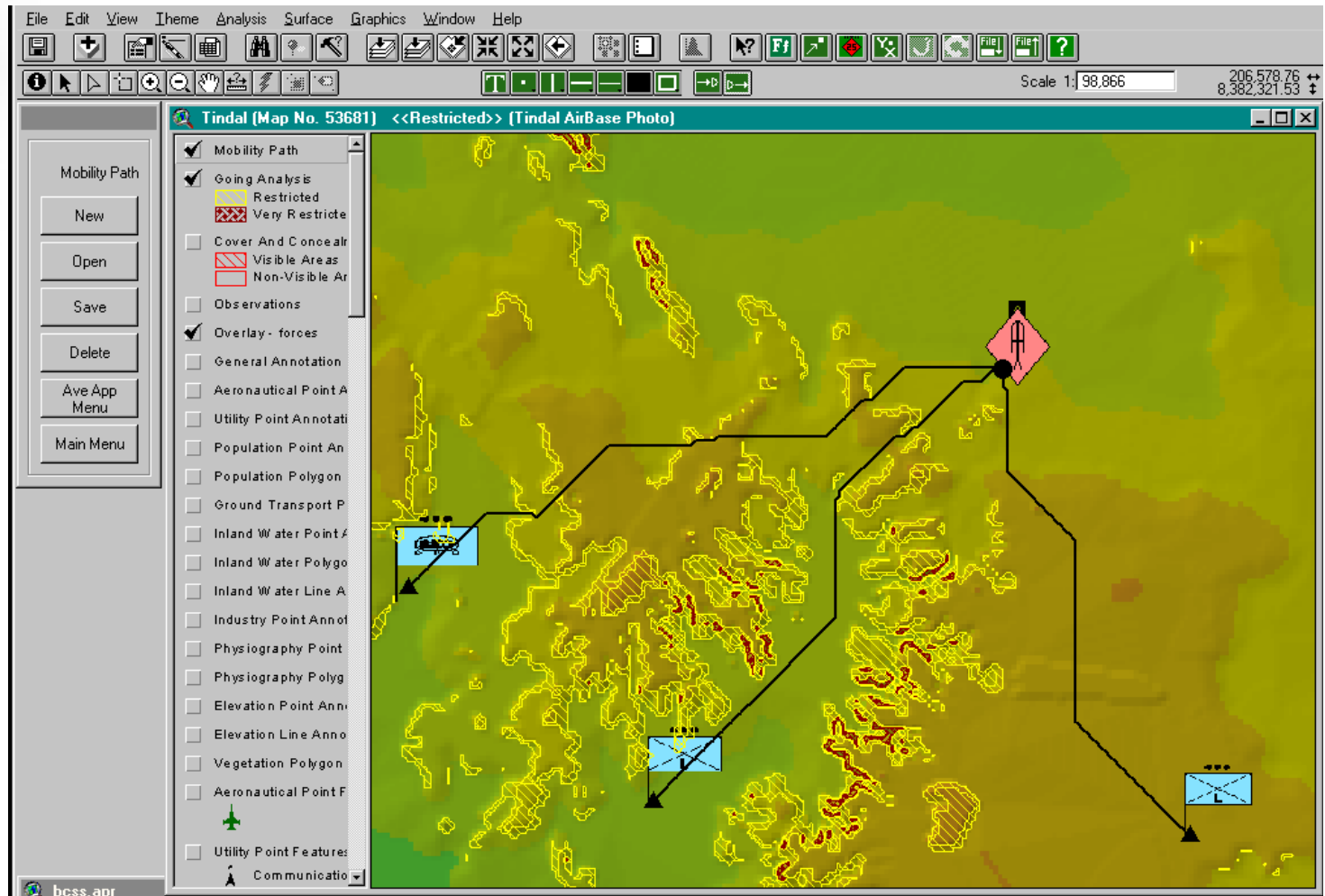
Going Analysis

Terrain Analysis classifies passable terrain



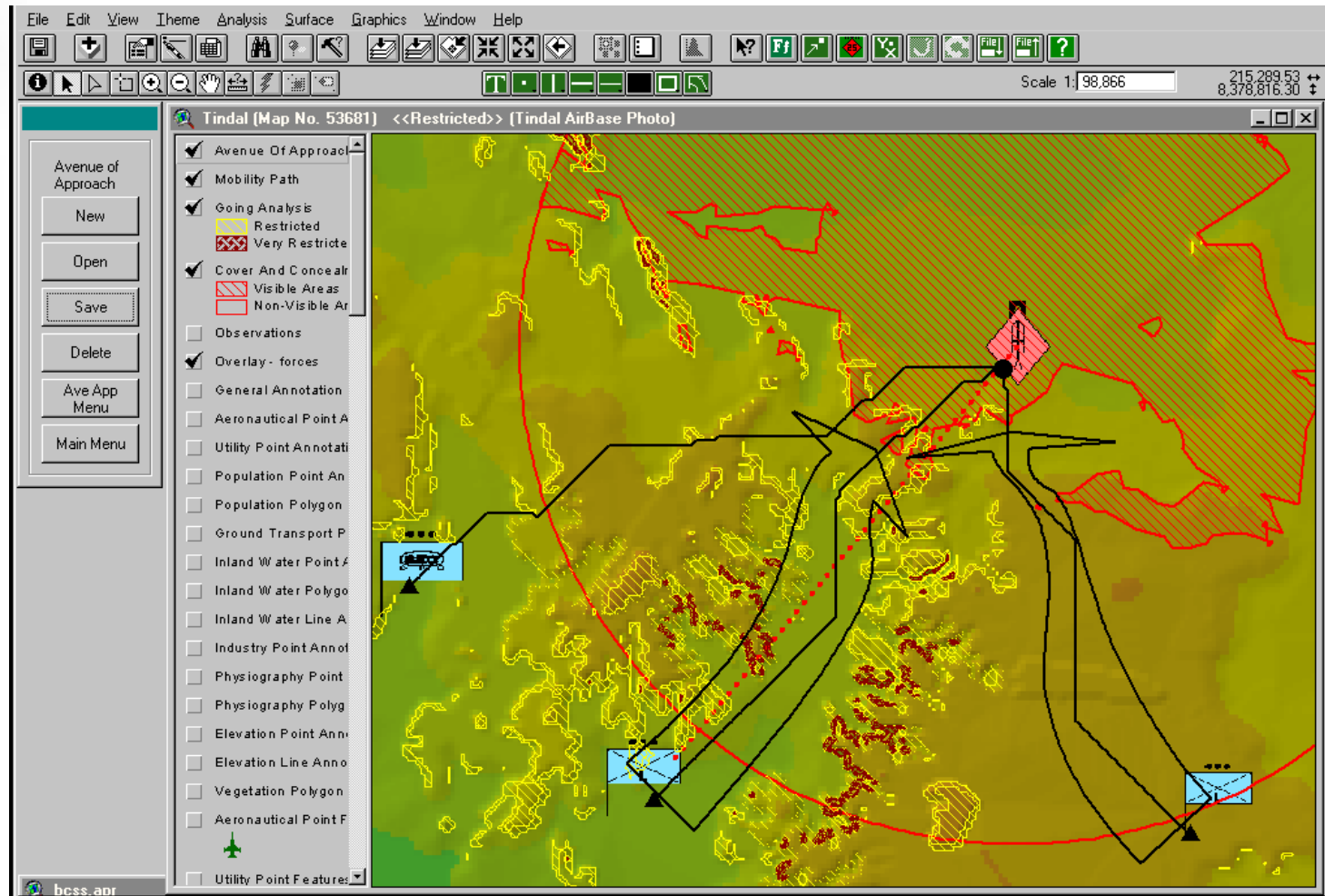
Mobility Path

Mobility path analysis determines least cost path



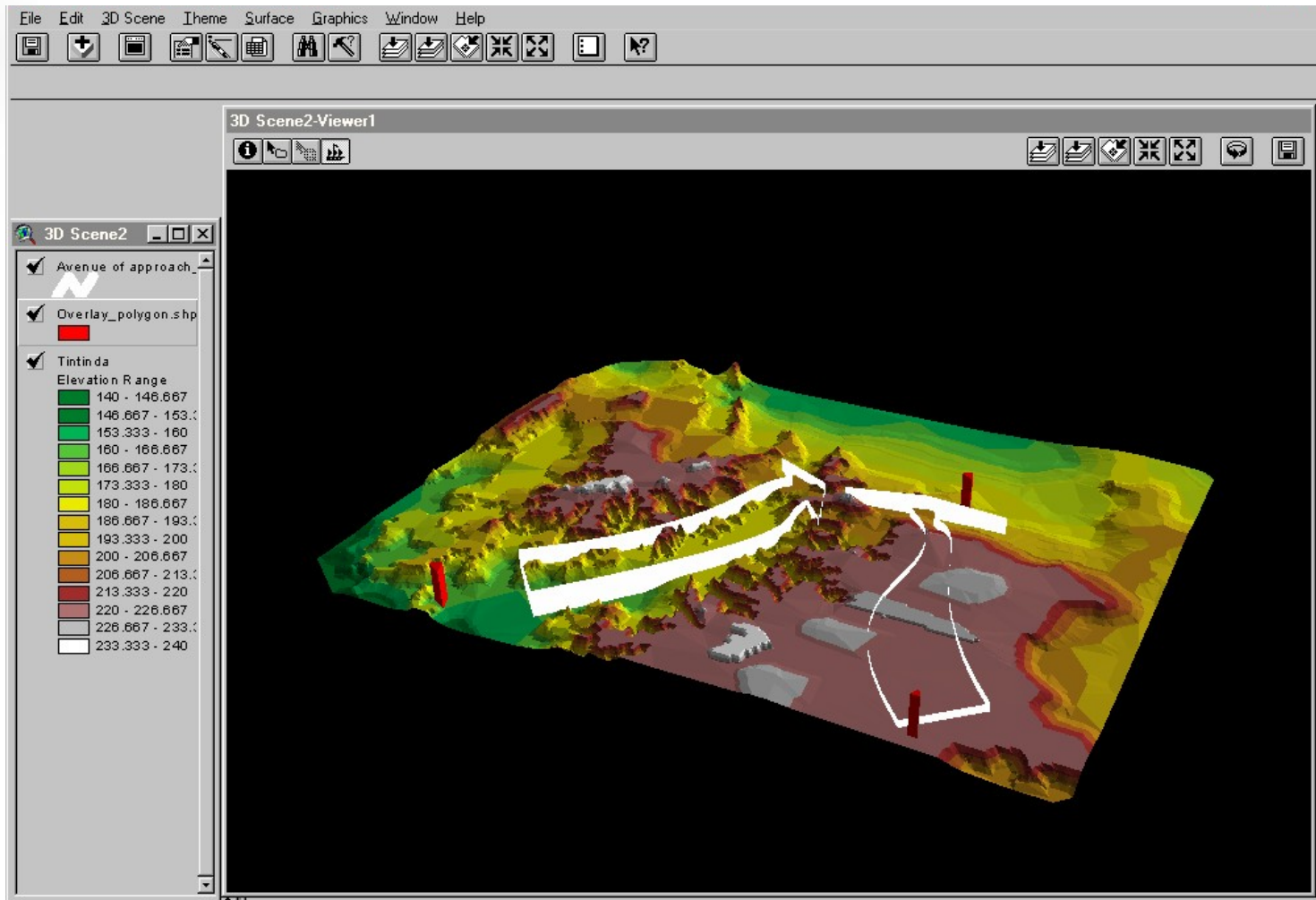
Avenues of Approach

Avenues of approach can be established



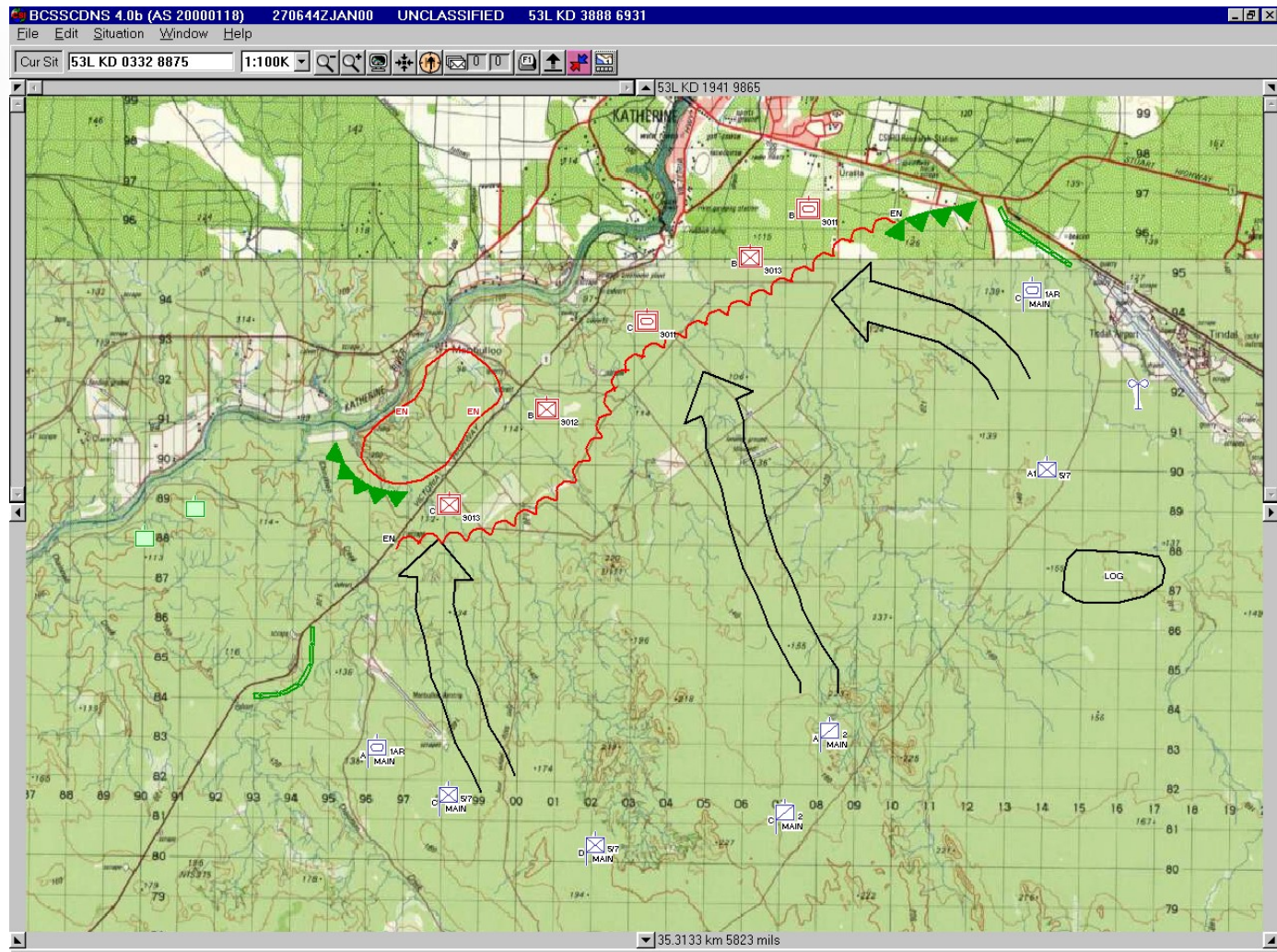
3D Visualisation

Ability to visual the battlefield in 3D.



Situational Awareness in Operation

Staff develop plan & an overlay is drawn...




Integrated Messaging

BCSSCDNS 4.0b (AS 20000118) 272307ZJAN00 UNCLASSIFIED 53L KD 3888 6931

File Edit Situation Window Help

Cur Sit 53L JD 9781 9061 1:50K



16 JAN 00 16:00

Queues Next Unread Archive! Clear Archives! Restore Archive

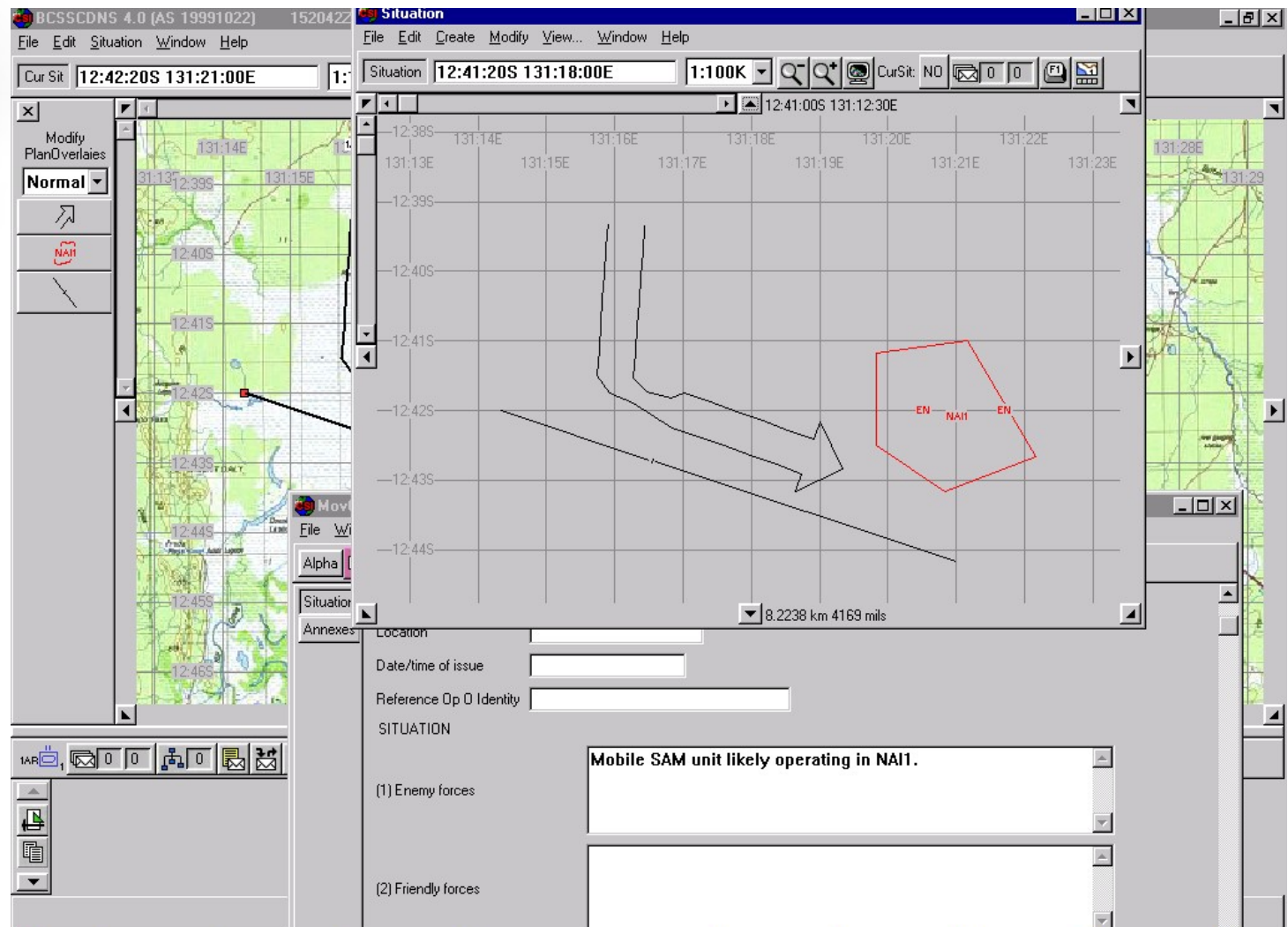
INCOMING 6/7 Delete! Delete All

STATUS	PREC	ADDRESS	MESSAGE TYPE	SUMMARY	RECEIVED AT
*	R	KARLIE	BATHREQ		272306ZJAN00
*	R	KARLIE	AirRecceReqTask		272306ZJAN00
*	R	KARLIE	AirReqTask		272306ZJAN00
*	R	KARLIE	BATHREQ		272306ZJAN00
*	R	KARLIE	AirRecceReqTask		272306ZJAN00
*	R	KARLIE	AirReqTask		272306ZJAN00

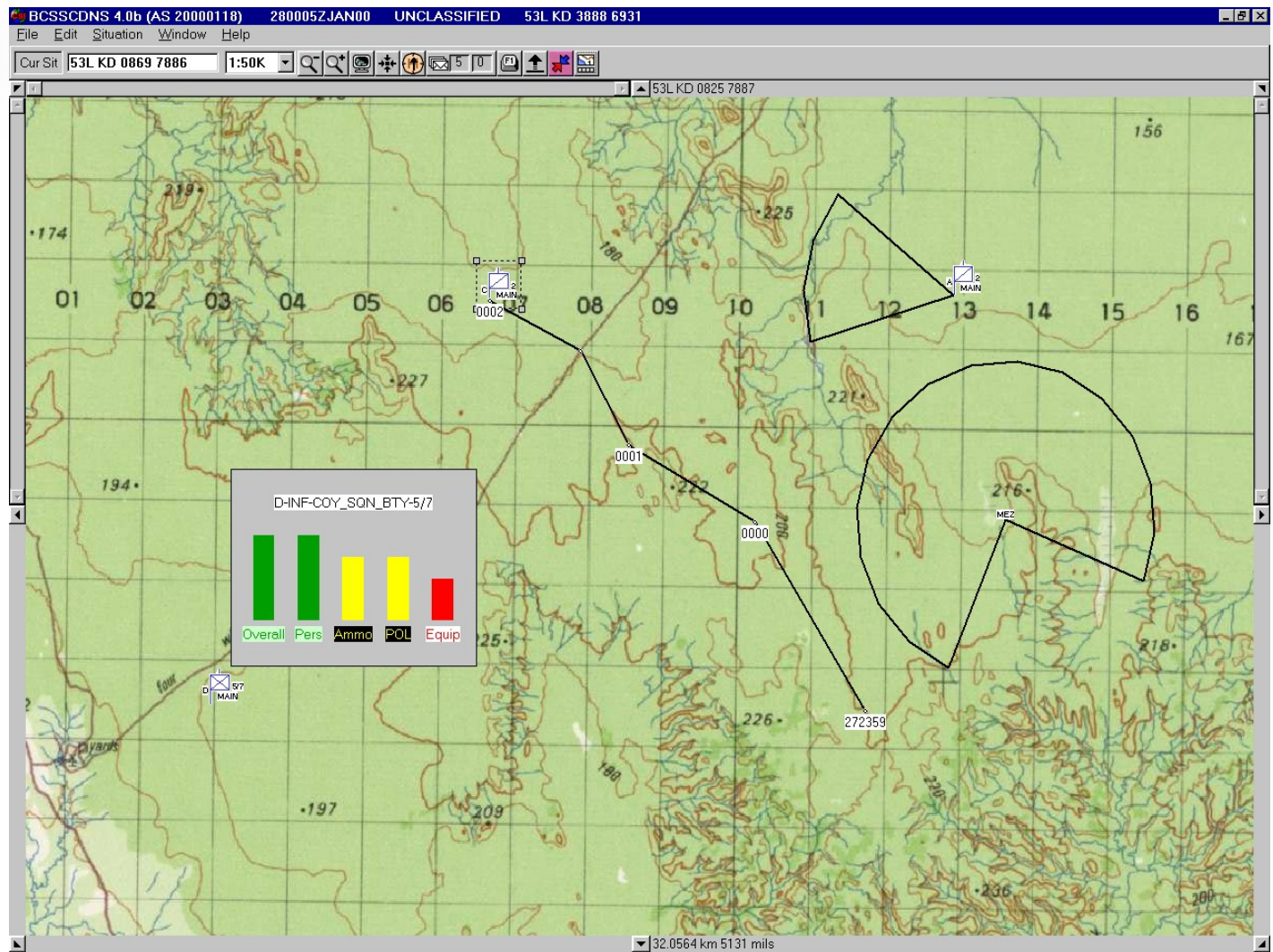


Operational Scenario

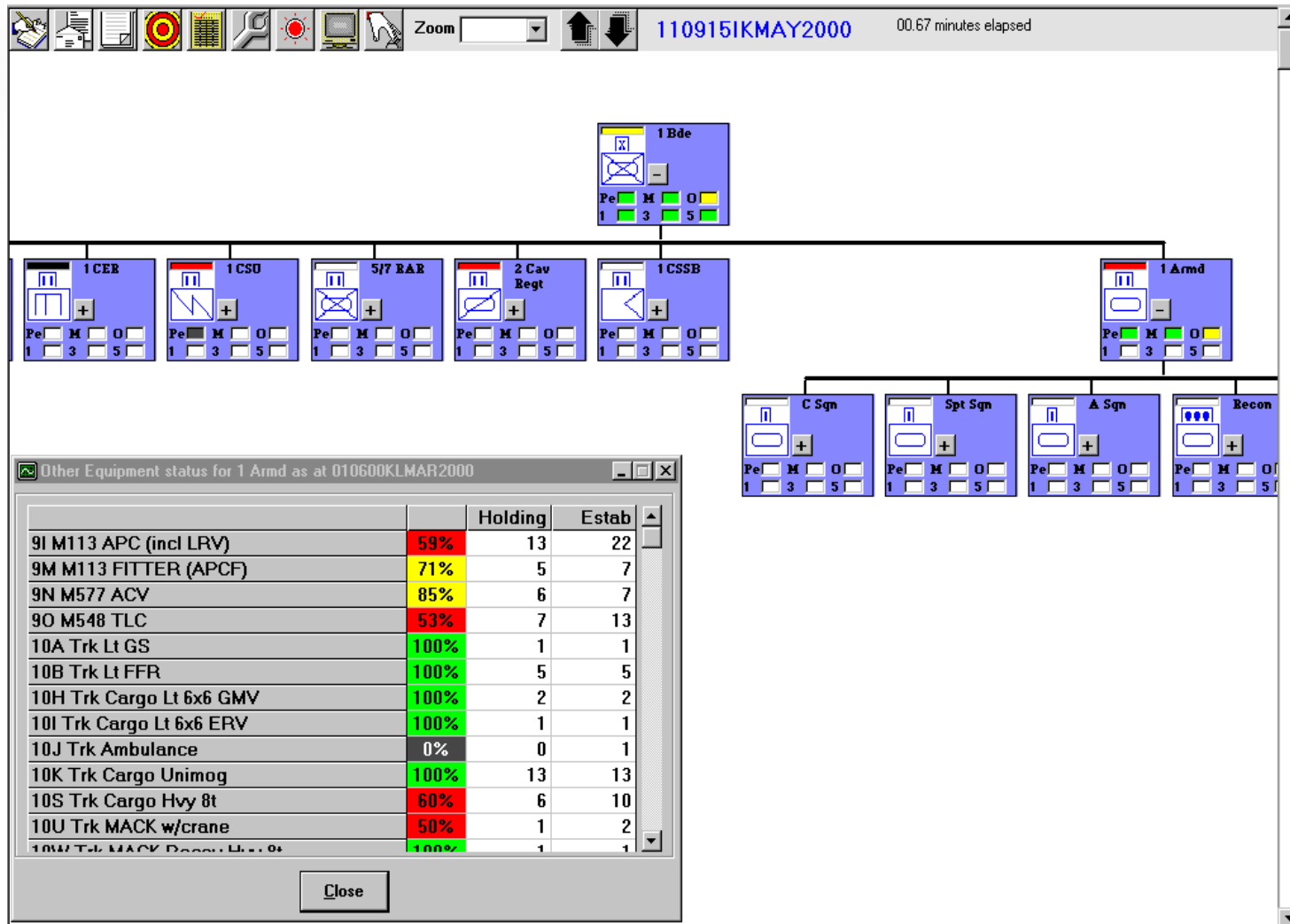
... and attached to an order to be transmitted.

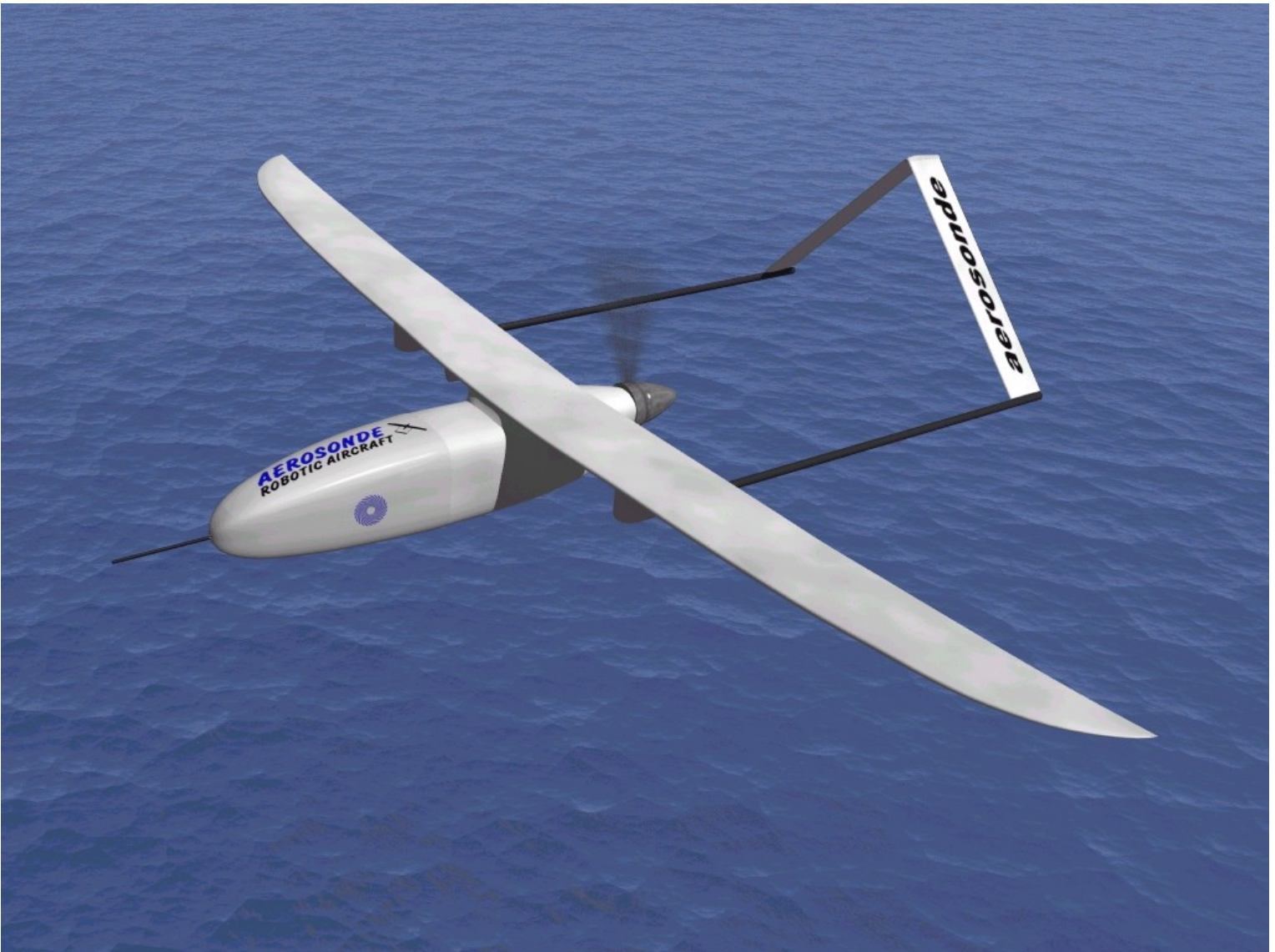


Unit Status and Details



Combat Status Display









SYSTEM OF SYSTEMS: Structure



■ Author: Anders Lundqvist, 000323-28 ■



DEMO AIR & SEA: Centre of Gravity



■ Author: Anders Lundqvist, 000608-47 ■



COMMAND POSTS

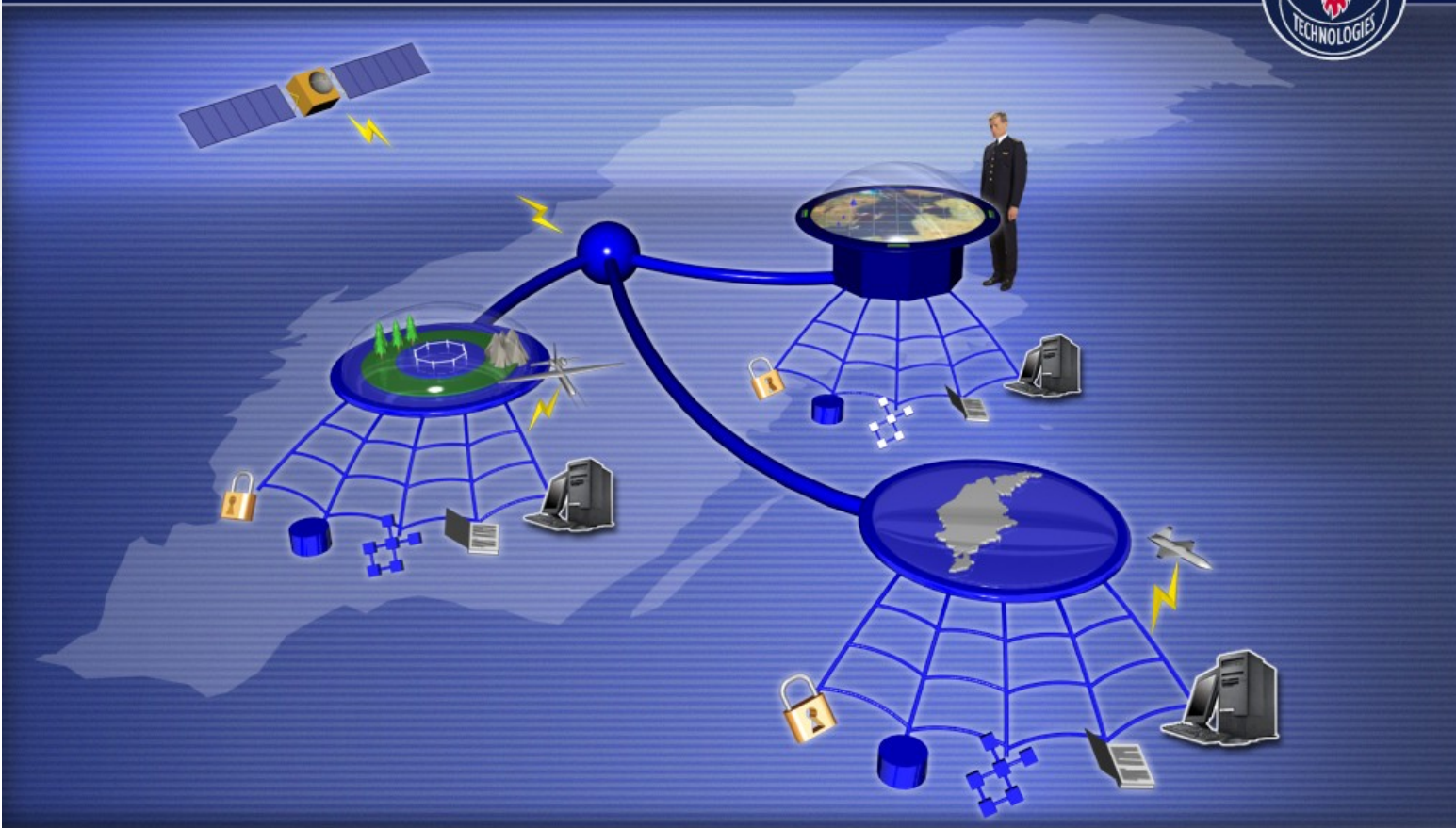


■ Author: Anders Lundqvist, 000712-60 ■





IT NETWORK

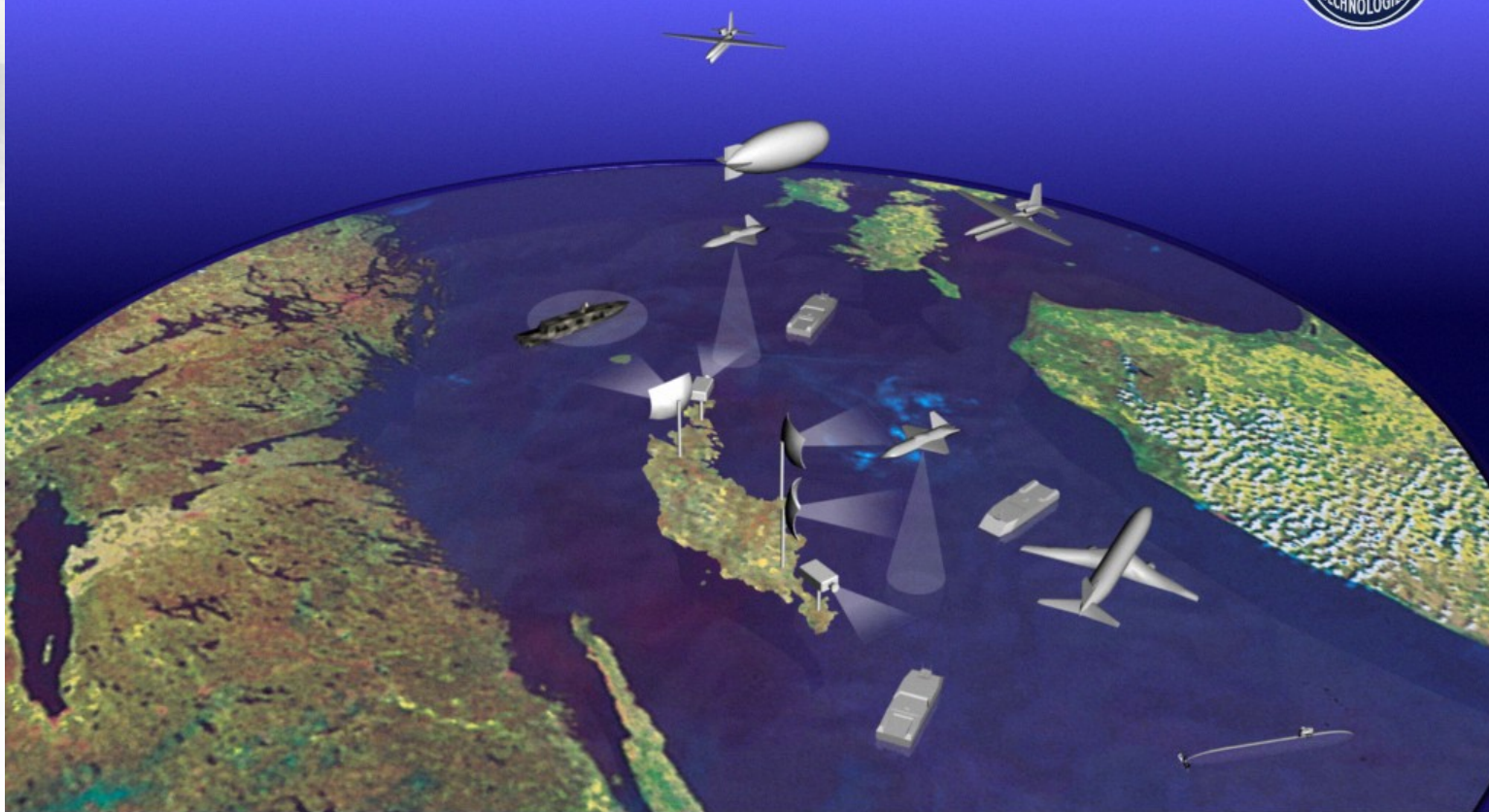


■ Author: Anders Lundqvist, 000710-58 ■





PLATFORMS & SENSORS



Author: Anders Lundqvist, 000713-64





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